

REMARKS

Claims 1 – 14 are in the application. By this amendment, Claims 15 and 16 have been cancelled. Figure 1 of the drawing figures has been amended by adding the caption “Prior Art” thereto. Claims 4 and 10 have been objected to.

Claims 1, 6 – 9, 11 and 12–13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto et al, U.S. Pat 6,469,402 (“Morimoto”) in view of Sonntag et al, U.S. Pat 6,213,233 (“Sonntag”). Examiner states that Morimoto teaches a cooling system for a hybrid vehicle powertrain in series configuration having a motor and transmission including a stator housing and a transmission housing. The Examiner asserts a cooling loop in “heat conductive contact” with the motor’s stator housing and with the transmission. The Examiner continues with the statement that the cooling loop has a heat exchanger and conduits providing a fluid flow connection between the stator housing, the transmission and heat exchanger. The Examiner concludes his discussion of Morimoto by stating that vehicle system controller 26 receives and processes input from at least one vehicle sensor and commands the system based upon the output of the sensor.

Further concerning Claim 1, 6-9 and 12-13, the Examiner argues that the cooling loop of Sonntag includes a heat exchanger and mechanical pump and auxiliary pump. Finally, the Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cooling system as taught by Morimoto with an additional pump as taught by Sonntag in order to provide increased control of the flow of coolant throughout the cooling circuit. Applicants respectfully traverse this rejection and request that each of Claims 1, 6-9, 11 and 12-13 be reconsidered in view of these remarks and passed to issue over the Examiner’s rejection.

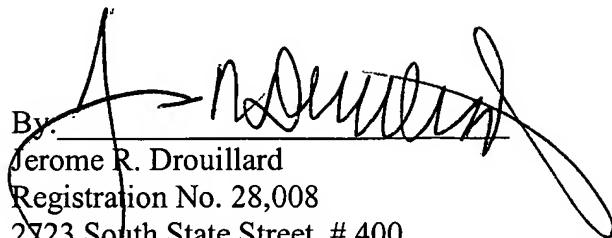
Applicants respectfully submit that neither Morimoto, nor Sonntag, whether taken singly, or in combination with each other, either teach or suggest Applicants’ claimed invention. The fact of the matter is that neither Morimoto nor Sonntag contain the scintilla of a suggestion of a cooling system in which, as set forth in Applicants’ claims, a cooling

loop has a conduit providing a fluid flow connection between a motor stator housing and a transmission in the context of a vehicle powertrain. Turning first to Morimoto, there is no conduit or other passage for providing cooling liquid to transmission 6 of Morimoto. Moreover, one will search in vain within the Sonntag reference for any type of liquid cooled transmission having a coolant circulating therethrough. The cited references simply do not teach a cooling circuit for delivering coolant to both an electric motor and a transmission. As a result, neither Morimoto, nor Sonntag, whether taken singly, or in combination with each other, may comprise even a colorable basis for rejection of Applicants' Claims 1, 6-9, 11 and 12-13 and each of these claims should be passed to issue over the Examiner's rejection. Such action is earnestly solicited.

Regarding Claims 7-8, the Examiner again cites Sonntag, but because Claims 7 and 8 depend from Claim 1, which is allowable over Sonntag and Morimoto, whether taken singly or in combination with each other, Claims 7 and 8 are similarly allowable. Moreover, this is true of Claim 9 as well. As a result, each of Claims 7-9 should be allowed over Examiner's rejection and passed to issue. Such action is earnestly solicited.

Claims 2-3 and 14-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto in view of Sonntag and further in view of Hasebe et al, U.S. Pat 6,467,286 ("Hasebe"). Claims 15 and 16 have been cancelled and therefore these remarks will be directed solely to Claims 2-3 and 14. As noted above, Claims 1 and 12 are allowable over cited references for the reasons stated. Therefore, Claims 2-3 are also allowable and should be passed to issue over the Examiner's rejection. Finally, regarding Claim 14, neither Morimoto, nor Sonntag, nor Hasebe, whether taken singly, or in combination with each other, either teach or suggest Applicants' claimed invention as set forth in Claim 14 because none of these references contains even the slightest suggestion of a combined electric motor and transmission cooling loop including a heat exchanger and conduit for fluidly connecting a motor stator housing, a transmission, a heat exchanger, a mechanical transmission pump and an auxiliary pump in one cooling system. As such, the Examiner's rejection is not supportable, and Claim 14, as well should be passed to issue over the Examiner's rejection. Such action is earnestly solicited.

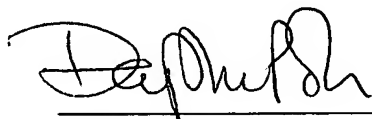
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CERTIFICATE OF MAILING

I hereby certify that the enclosed Amendment is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 12 day of May, 2004.



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